

EXPERIMENTAL PROJECT

EVALUATION OF A CONVENTIONAL CHIP SEAL UNDER AN OVERLAY TO MITIGATE REFLECTIVE CRACKING (INFORMAL)

Annual Report

Location: Big Horn County, Secondary 313; C000313 – MP
Reference approximately 27: Billings District

Project name: St. Xavier N & S

Project Number: SFCS 313-1(18)22

Type of Project: Experimental trial using a conventional chip seal
under an overlay (76mm-0.25' plant mix) to mitigate
reflective cracking

Principal Investigator: Craig Abernathy
Experimental Program Manager

Date Constructed: June 2008

Evaluation Date: June 2008/October 2008

Objective

The Billings District initiated an experimental project in placing a conventional chip seal prior to an overlay (or as an interlayer) in an attempt to minimize reflective cracking. The intent of the chip seal was to act in the sense of a stress-absorbing layer, similar to a SAMI application.

Experimental Design

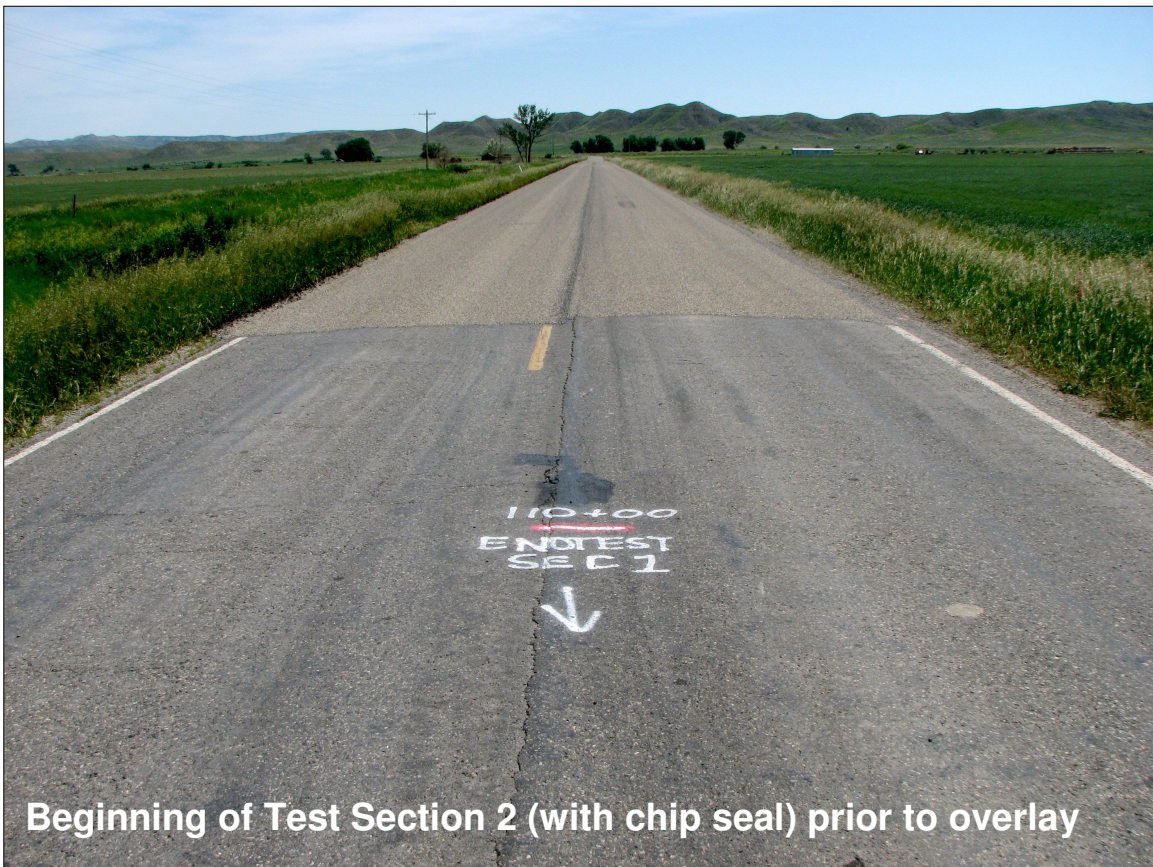
The project is located on Secondary 313, at the mile reference 27. Two 305 meter (1000') sections encompass the experimental design. Section 1 is the control site with no chip seal as an interlayer. Section 2 is the test site which incorporates the chip seal layer. Jon Watson and Dan Hill of the Pavement

Analysis Section along with Research staff visited the project to delineate the sections to insure uniformity of surface distress on both sites for consistency with the ongoing analysis. See attached layout.

Analysis

The main objective of the research is to monitor the effectiveness of the chip seal interlayer by comparing it to the control section. As visible distress begins to appear on the pavement, Research will document the sites with visual representation and crack mapping. Normally the construction activities of the placement of the chips seal and overlay are documented. Research was unable to document those activities. The following images show the control and test sites after the chip seal and overlay were installed.

June 2008



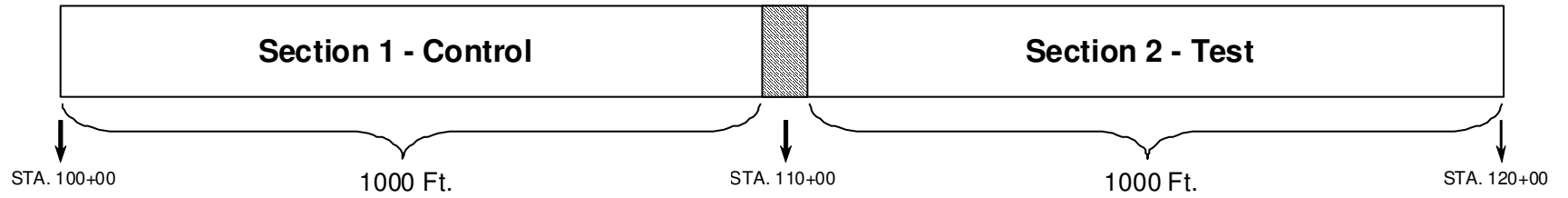
October 2008 Completed sections 1 & 2



C000313 - Secondary 313

St. Xavier: Chip Seal with Overlay to Retard Reflective Cracking

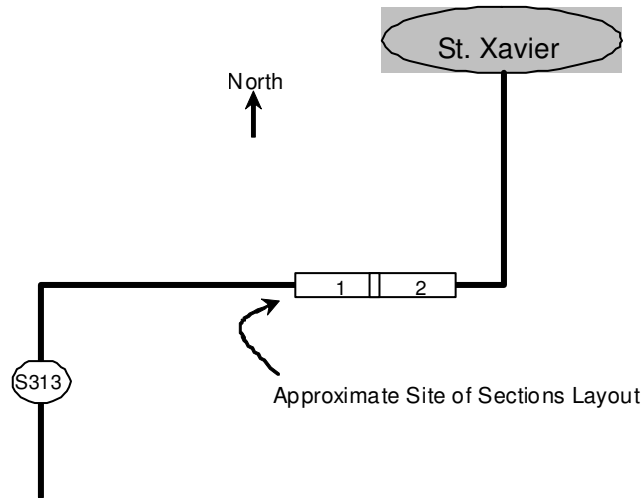
Experimental Layout - located approximately within mile point reference 27



Section 1 - Control: No chip seal

Section 2 - Test: Chip seal with overlay

■ - 25' Transition zone



Note: All values are approximate